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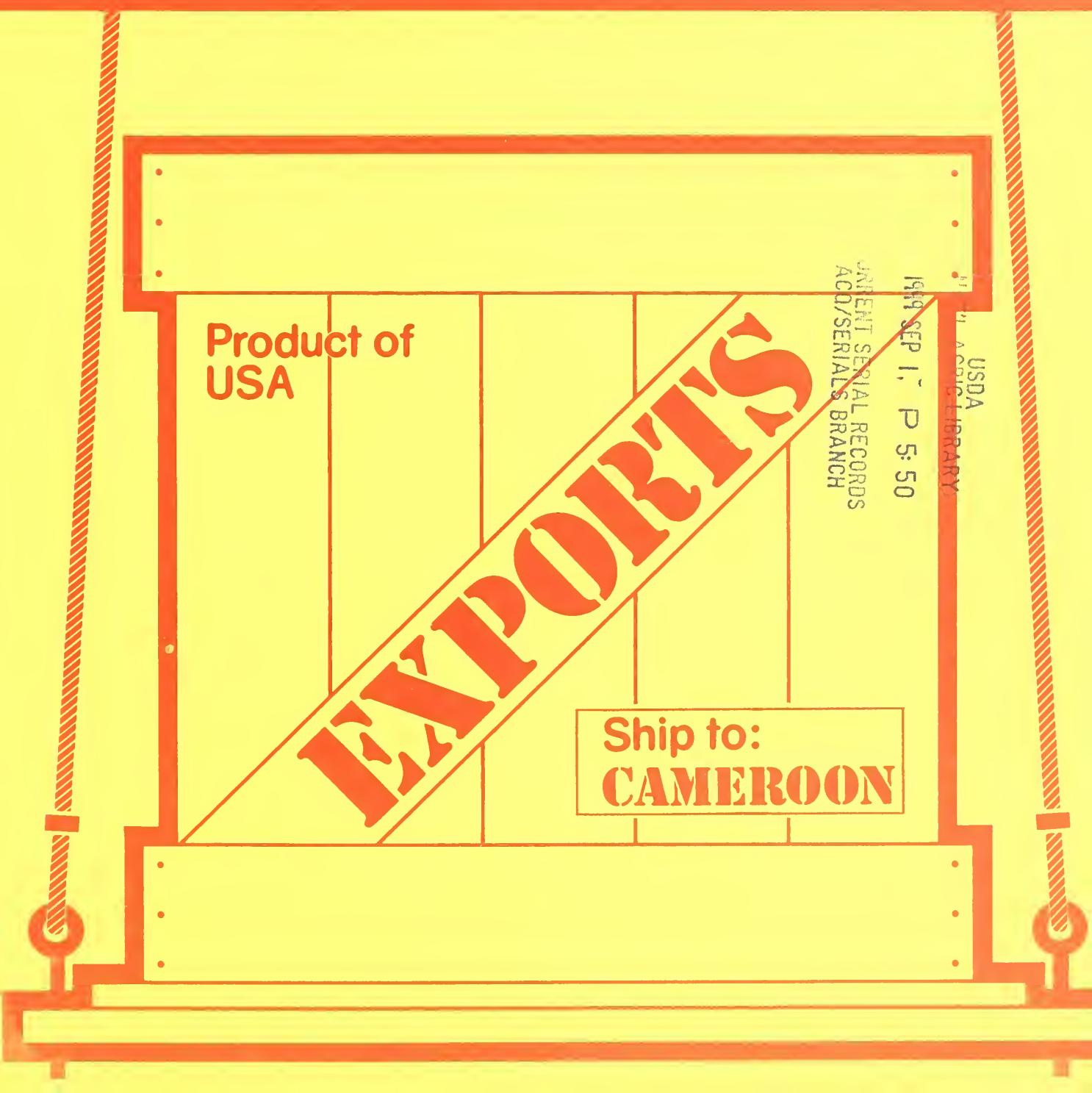
Cameroon

An Export Market Profile

Mary E. Burfisher



CAMEROON: AN EXPORT MARKET PROFILE. By Mary E. Burfisher, International Economics Division, Economic Research Service, U.S. Department of Agriculture, Foreign Agricultural Economic Report No. 205.

Abstract

Cameroon is a Central African oil-exporting country with good prospects for continued strong economic growth and development, making it an attractive market for increased U.S. agricultural exports. Because Cameroon's food import demand is increasing, the United States is in a good position to increase its sales, currently worth $6-$8 million annually and representing about 5 to 8 percent of Cameroon's total agricultural imports. By 1990, with high income growth or increased urbanization, demand for wheat could lead to imports of over 570,000 metric tons, up more than fivefold from 112,715 tons annually in 1978-80. Rice imports could exceed 135,000 tons by 1990, up almost fivefold from 28,020 tons annually in 1978-80. Fish imports could more than double from 14,613 tons in 1978-80 to almost 38,000 tons by 1990. Imported tinned meats should more than double to about 2,800 tons by 1990.

Keywords: Cameroon, agricultural imports, agricultural policies, import policies, import projections.

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Washington, D.C. 20250 September 1984

Preface

Expanding the market for U.S. agricultural exports is a major goal of the U.S. Department of Agriculture (USDA). The Economic Research Service in cooperation with the Foreign Agricultural Service is preparing export profiles for a number of high-potential markets for U.S. agricultural products. The Economic Research Service is USDA's major source of agricultural and trade information on foreign countries and regions, while the Foreign Agricultural Service has the key role in helping U.S. agriculture further increase exports in world markets.

This report presents information on the prospects for U.S. agricultural exports to Cameroon. The study surveys basic factors underlying agricultural supply and demand, presents longrun projections of food and agricultural trade, and suggests opportunities for export expansion. The report is intended for officials responsible for export market development programs, the agribusiness community, and the general public. The profile will also help identify information gaps and can serve as a basis for subsequent evaluations of the effects of market extension activities. Similar profiles will be prepared for selected markets in Africa and the Middle East, Asia, and Latin America.

Conversion Chart

This report uses metric units throughout:
1 metric ton = 2,204.62 pounds
1 hectare = 2.471 acres
1 kilometer = 0.621 mile
436.25 Communaute Financiere Africaine (CFA) = 1 U.S. dollar (July 1984)
50 CFA = 1 French franc (fixed rate)

Contents

Summary

Cameroon is a Central African oil-exporting country with good prospects for continued strong economic growth and development, making it an attractive market for increased U.S. agricultural exports. Because Cameroon's economic growth is expected to increase demand for agricultural imports, the United States is in a good position to increase its sales, currently worth $6-$8 million annually and representing 5 to 8 percent of total Cameroon agricultural imports.

There are several specific commodity groups which seem to offer the greatest potential for increased U.S. exports. Demand for wheat, for example, could lead to imports of more than 570,000 metric tons by 1990, up more than fivefold from 112,715 tons annually in 1978-80. Rice imports could exceed 135,000 tons by 1990, up almost fivefold from 28,020 annually in 1978-80. Fish imports could more than double from 14,613 tons in 1978-80 to almost 38,000 tons by 1990. Imported tinned meats could more than double to about 2,800 tons by 1990, up from 1,151 tons annually in 1978-80.

Cameroon has a productive agricultural sector that meets about 80 percent of domestic food requirements. However, several factors are accelerating food import requirements. Cameroon's economy has grown since the discovery of oil, and many farmers have left rural areas in hopes of finding more lucrative jobs, particularly in Douala, the country's port city and major commercial center, and in the capital city of Yaounde. Partly because of this increased urbanization, Cameroon's food import needs are increasing. The Cameroon Government's recent emphasis on producing export crops such as cocoa and coffee has contributed to the agricultural sector's problems in meeting domestic food demand. A poor transportation infrastructure has made it difficult and expensive to move agricultural products from rural sites in the north to urban markets in the central and southern areas of the country. Increased urbanization and affluence have increased demand for imported food products.

France has been the major supplier of imported foods to its former colony. However, the buildup of the Cameroon oil industry has brought many U.S. citizens into the country, creating a larger market for U.S.-produced goods. Processed foods from the United States, such as canned tomatoes, have been well accepted by Cameroon consumers.

If the Cameroon economy remains strong and continues to grow as it has in the recent past, projected increases in food import requirements are likely to be realized by 1990. For the United States to ensure its place in the overall import picture, U.S. exporters must enter the Cameroon market aggressively. The most effective strategy is to work with established Cameroon businesses. Cameroon has liberal economic policies that are favorable to foreign investors. There are some Government requirements, including regulations on the training and hiring of local staff.

Cameroon


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Cameroon: An Export Market Profile

Mary E. Burfisher

Introduction

Trends in the agricultural imports of Cameroon and its prospects for strong economic growth and development make this Central African country an attractive market for expanded U.S. agricultural exports.[1] Growth in U.S. agricultural exports will increasingly depend upon the exploration and development of promising new markets in developing nations such as Cameroon.

Cameroon imported over $125 million worth of food commodities in 1982 for its 9.2 million people. The value of food imports has grown nearly sixfold since 1970, with commodity composition diversifying from predominantly wheat and rice to include more fish, meats, dairy products, and processed foods.

France is the major supplier of food imports to its former colony, but increased U.S.-Cameroon commercial ties, concentrated so far in the petroleum and banking sectors, create opportunities for increasing the U.S. share of the agricultural market as well. The American business presence has grown rapidly since 1979. About 40 U.S. companies have representatives or branches in Cameroon. The United States purchases about 90 percent of the high-quality oil produced by Cameroon. The increasing role of Cameroonians in the economy, particularly in the trading sector, also provides opportunities for growth in U.S.-Cameroon trade.

Objectives of this study are to:

- Analyze recent trends in Cameroon's food import demand, identifying and describing key factors underlying import demand for 11 major commodities or indexed commodity groups;
- Project import demand for these commodities for 1985 and 1990 under four alternative assumptions about trends in income and domestic agricultural production during 1980-90; and
- Identify opportunities and strategies for increasing U.S. agricultural exports to Cameroon.

The study concludes that if recent trends in income, domestic agricultural production, and import prices continue, Cameroon's wheat imports will increase by 10.4 percent annually from 1980 to 1990, rising to 461,000 tons in 1990. Rice imports could increase by 9 percent annually during the same period to nearly 100,000 tons. Other high-growth commodities will be dairy, primarily nonfat dry milk and canned condensed milk, fish, poultry, prepared meats, and basic and inexpensive processed and convenience foods.

Changes in underlying trends, such as an acceleration of income growth or faster urbanization compared with 1965-80 trends, could cause some imports to increase at a substantially higher rate. Wheat imports could grow by 16 percent annually from 1980 to 1990, to 570,708 tons in 1990. Rice imports could also grow by 16 percent annually during the same period to 135,864 tons. Fish imports could more than double from 14,613 tons in 1978-80 to 37,981 tons by 1990.

Cameroon Today

Cameroon, with a population of 9.2 million, is located at the juncture of West and Central Africa. Agriculture, until recently the most important sector in Cameroon's economy, is well diversified, and steady growth in farm production has enabled Cameroon to meet about 80 percent of domestic food requirements. Supported by growth in agricultural output and, since the late seventies, in petroleum exports, Cameroon's gross domestic product (GDP) grew at an impressive real annual rate of 5.6 percent during the seventies despite the turbulent world economy (table 1). Real annual growth in GDP increased to more than 7 percent through 1982-83 and it is projected to remain at about 7-8 percent through the middle eighties.

[1] In this report, "agricultural" imports or exports refers to imports or exports of wheat and wheat flour, rice, meat, fish, prepared vegetables, fresh fruits and vegetables, dairy products, tobacco, alcoholic beverages, and the ingredients for manufacturing alcoholic beverages.

Sizable offshore petroleum reserves were discovered in 1977. Rapid growth in the volume of oil exports since 1978 has offset declining world oil prices and helped to generate a trade surplus in the face of declining world prices for its agricultural exports (tables 2 and 3). While statistics are not yet available, the balance of payments deficit since 1980-81 is expected to have continued through the present as the imports required for Cameroon's ambitious development plans increase capital outflows and the large services debit. Nevertheless, Cameroon's total debt at the end of 1982 was relatively minor at slightly over $2 billion with a modest debt-service ratio of only 12 percent.

Cameroon's long record of political stability was upset by unsuccessful coup attempts in June 1983 and April 1984. Former Cameroon President Ahmadou Ahidjo had successfully led this geographically and culturally diverse country from its independence in 1960 until his resignation in November 1982, when former Prime Minister Paul Biya peacefully assumed control of the Government. While the country's political future is difficult to assess, its record of political stability and the increasingly technocratic composition of the Government give Cameroon good prospects for continued political order.

The Cameroon economy is managed according to a principle of "planned liberalism," which encourages development of the private sector in conjunction with Cameroon's national self-interest and its determination to make its own people the beneficiary of the country's development.

Cameroon confronts some significant development problems which are typical of a developing country. Petroleum revenues, however, have increased the resources available for investment in national development. Among the most critical of these problems is the fact that steady growth in agricultural output has masked the declining productivity of the agricultural sector. In particular, crop yields for coffee, groundnuts, and cassava declined between 1970 and 1980, while yields for most other crops have stagnated (*8*).[2] To counter this trend, Cameroon has significantly increased investments in agriculture since 1980, particularly in improving the distribution of inputs and production, providing more farm credit, and strengthening agricultural research. Development efforts have been recently extended to provide greater support to domestically consumed food crops as well as to export crops.

Cameroon's social indicators resemble those of countries with much lower per capita annual incomes than Cameroon's $880 per capita gross national product (1981). Life expectancy at birth is 47 years, and only one-fourth of the population has access to safe drinking water (*19*). Easing its past policy of targeting investments toward directly productive activities, the Cameroon Government is increasing its investment in social welfare, particularly in education and health services. Aimed primarily at rural areas, social welfare expenditures are in part a deliberate effort to slow the urbanization rate which now averages 7 percent annually. The growth rate of urban areas is substantially higher than total population growth, which reached 2.6 percent in 1983.

Transportation is also a major constraint. Less than 10 percent of Cameroon's 28,000 kilometers (km) of roads

Table 1—Composition of Cameroon's gross domestic product

Industry	1977-78	1978-79	1979-80	1980-81
	Million dollars			
Agriculture	1,243.1	1,591.9	1,901.1	2,105.5
Mining	21.2	102.8	360.6	930.9
Manufacturing	355.8	451.6	578.2	686.2
Construction	47.6	63.4	79.0	94.7
Government services	286.6	373.6	470.6	567.9
Other	1,737.3	2,210.6	2,781.6	3,289.6
Total GDP	3,849.9	5,032.4	6,888.8	8,062.9

Source: (*5*).

Table 2—Value and composition of Cameroon's exports

Exports	1979	1980	1981	1982
	Million dollars			
Cocoa	187.1	289.6	266.4	208.2
Coffee	283.9	299.1	188.8	147.4
Wood	81.3	151.9	57.4	74.0
Petroleum	108.0	397.5	794.9	1,192.5
Other	150.3	214.0	170.4	182.4
Total exports	810.6	1,352.1	1,477.9	1,804.5

Source: (*4*).

[2]Italicized numbers in parentheses refer to items listed in the Bibliography at the end of this report.

World Bank Photo

Modernized port facilities allow containerized shipping for both imports and exports at Douala.

are paved. The best transportation routes link Douala, Cameroon's major port and commercial center, and the centrally located capital city of Yaounde. Modernization of Douala's port includes excellent container facilities. Major railway reconstruction should be completed by the late eighties. Investments in road and bridge construction are increasing.

U.S.-Cameroon Trade

Cameroon is the United States' third most important trading partner in Sub-Saharan Africa because the United States is the leading purchaser of Cameroon petroleum. U.S. imports from Cameroon totaled $515 million in 1983, of which 80 percent was petroleum. Coffee imports, worth $20.5 million in 1983, were the second leading import by the United States. U.S. agricultural exports to Cameroon were valued at $6.5 million in 1983, and consisted mainly of filler tobacco, dried milk, inedible tallow, hops, various processed foods, sorghum, wheat, and rice (table 4).

The number of U.S. trade missions traveling to Cameroon has increased since a Cabinet-level mission in January 1982. Trade missions are exploring opportunities in commerce, the petroleum industry, manufacturing, food processing, and food and agricultural trade. Provision of Government credit for U.S. food exports and the increased number of U.S. Department of Commerce staff in Cameroon should provide greater support to all areas of the expanding U.S.-Cameroon commercial relations.

Outlook

Cameroon's earnings from mineral and energy development are the driving force behind national development, as the increased volume of oil production and exports offsets the decline in world oil prices. Cameroon's petroleum production increased to about 150,000-160,000 barrels a day (bbl/d) at the end of 1983 from an estimated level of 100,000 bbl/d in 1982. Oil export revenues of over $1 billion annually may be small by world standards, but they are of crucial importance to the Cameroon economy. The Government is following conservative management and investment policies intended to use oil revenues to support broad, steady, and manageable economic growth and development in other sectors, particularly in agriculture.

While oil revenues are not expected to have the destabilizing, oil-boom effect experienced by neighboring Nigeria, for instance, oil earnings have nevertheless significantly affected Cameroon's economy. Cameroon trade data since 1980 are patchy, but both aggregate and more up-to-date data on specific imports show that increased national income is accelerating imports of food, consumer goods, and the capital goods and services required for development (table 5).

Spurring the growth in imports of capital goods and services is the sizable increase that oil revenues have generated in the national budget and the fifth 5-year development plan (covering 1981 to 1986). The Government budget increased by 33 percent between 1981-82 and 1982-83 to $1.2 billion and increased by 27 percent in 1983-84 to over $1.5 billion. The 1981-86 5-year development plan increased threefold from the

Table 3—Balance of payments, 1977/78–1981/82

Transfer	1977/78	1978/79	1979/80	1980/81	1981/82[1]
			Million dollars		
Exports (f.o.b.)	705.1	714.3	936.9	1,163.3	1,505.4
Imports (f.o.b.)	637.6	737.1	863.9	958.3	1,193.8
Trade balance	67.5	−22.8	73.0	205.0	311.6
Services	−114.8	−153.4	−188.5	−270.5	−369.8
Private transfers	−5.7	−11.7	−23.3	−13.1	−14.5
Government transfers	20.6	20.4	25.3	27.7	32.1
Net errors and omissions	4.7	−3.8	.9	−163.8	NA
Nonmonetary capital	80.9	100.4	205.6	182.6	157.2
Overall balance	30.9	−23.3	68.2	−62.6	NA

NA = Not available.
[1]Estimated.
Source: (*4*).

Table 4—U.S. agricultural exports to Cameroon

Export	1976	1977	1978	1979	1980	1981	1982	1983
				1,000 dollars				
Wheat	0	0	0	0	58	0	0	80
Wheat flour	333	215	0	0	207	0	0	0
Bulgar and rolled wheat	61	311	174	290	218	0	0	0
Rice	129	235	583	1,771	284	734	248	17
Nonfat dry milk	184	382	269	238	338	345	471	272
Prepared beef	0	0	0	0	0	0	1	0
Prepared pork	0	0	0	0	3	0	26	0
Poultry meat	0	0	0	0	0	0	0	59
Baby chicks	2	0	0	13	0	9	0	0
Inedible tallow	1,488	1,825	1,263	2,076	1,140	1,140	798	1,249
Grain sorghums	0	0	0	283	0	1,017	94	408
Fruit products	0	42	0	8	70	0	0	4
Prepared vegetables	986	989	208	348	362	215	304	65
Soybean oil	65	31	470	449	506	384	474	90
Tobacco, unmanufactured	2,105	2,880	2,627	2,892	1,614	3,142	3,091	3,327
Total	6,689	8,511	6,803	8,913	6,293	8,459	7,230	6,486

Source: (*17*).

previous plan, to over $7.2 billion. Priority investment areas for national development are agriculture, minerals and energy, and industries based on processing domestic raw materials.

The Government is determined to use petroleum revenues to increase support to its agricultural sector, which employs 80 percent of the population. Almost one-quarter of the budget for Cameroon's cur-

Table 5—Gross domestic product, oil exports, and selected imports

Gross domestic product/oil exports/imports	1977	1978	1979	1980	1981	1982	1983
				Million dollars			
GDP	3,850	5,032	6,489	8,044	7,498	7,792	8,086[2]
Oil export revenue	0	0	108	398	795	1,193	1,086[2]
Food imports	69	78	107	116	121	125	NA
Manufactured consumer goods[1]	62	78	100	121	140	119[2]	NA
Capital goods and equipment[1]	229	289	359	386	437	NA	NA
Services[1]	98	115	153	189	271	370[2]	NA

NA = Not available.
[1]Fiscal year basis, July–June.
[2]Estimated.

Source: (*4, 5*).

rent 5-year development plan, or about $1.6 billion, is allocated to this sector. A national food plan within the 5-year plan outlines agricultural investment priorities. Despite much public discussion of achieving food self-sufficiency, much of the investment is going to cash crops and agro-industrial projects, although attention to food-crop production is increasing. Realization of Cameroon's excellent potential for development will depend on the effectiveness of public policies in directing Cameroon's resources toward solving constraints in agricultural productivity, transportation, industrialization, and the health and welfare of the population.

The Agricultural Sector

Agriculture, combined with forestry, animal husbandry, and fishing, is the primary economic activity in Cameroon. In 1980-81, agriculture employed 83 percent of the labor force, accounting for 33 percent of total export earnings and 28 percent of GDP. The major food crops produced in Cameroon are cassava, yams, cocoyams (taro-macabo), plantains, maize, millet, and sorghum (table 6). Cameroon is the world's fifth largest cocoa exporter and is one of the most important coffee exporters in Africa. Cotton, bananas, wood, and rubber are also exported.

Falling world cocoa and coffee prices and Cameroon's developing petroleum industry have reduced agriculture's relative contribution to Cameroon's exports and GDP since the late seventies. Cameroon's agricultural sector is nevertheless considered to be one of the most dynamic agricultural sectors in Sub-Saharan Africa. The index of total agricultural production increased to 126 in 1983 from 100 in 1969-71. However, the index of per capita production declined to 92 in 1983, signaling the inability of production increases to keep pace with population growth. Domestic production supplies about 80 percent of Cameroon's food needs. Most domestically produced food is consumed locally, although increasing amounts of fresh produce are exported in border trade to neighboring countries.

Agricultural Policy

In addition to a favorable climate and a good endowment of natural resources, a factor in the strong performance of Cameroon's agriculture has been the Government's policy of supporting its agricultural sector. That policy was catalyzed by the Sahelian drought of 1973-74 and the ensuing regional food shortages. In 1974, former President Ahidjo announced a program officially encouraging farmers to increase production. The program's goals were to achieve food self-sufficiency and growth in regional food exports and to increase production of export crops in order to earn the foreign exchange necessary to purchase the imports required for development.

In particular, the Government has pursued an active producer price policy which guarantees producer

Table 6—Production of major crops

Crop	1979	1980	1981	1982	1983
			1,000 metric tons		
Rice, paddy	47	44	50	71	68
Corn	408	490	500	540	500
Millet/sorghum	414	441	351	423	396
Cassava	642	620	600	625	630
Yams	492	487	465	490	500
Cocoyams (taro-macabo)	792	810	775	800	820
Bananas	115	116	98	110	112
Plantains	1,017	969	979	960	940
Cotton (lint)	28	28	26	22	23
Coffee	101	113	109	97	78
Cocoa beans	124	120	119	116	100

Sources: (*16*) and Economic Research Service estimates.

prices for rice and major export crops.[3] Producer prices are set in October at the beginning of the crop year, and have tended not to reflect trends in world prices in recent years (tables 7 and 8). From 1970-75, producer prices were generally about half the level of world prices and increases kept roughly apace of changes in world prices. Surpluses generated by the differences between producer prices and world prices provided funds to Cameroon's monopoly crop marketing agency, the Office National de Commercialisation des Produits de Base (ONCPB). The funds, in turn, were used to support a price stabilization fund, to finance rural infrastructural development, and to make contributions to the national budget for the development of nonagricultural sectors.

Increases in world prices for Cameroon's major export crops during the commodity price boom of 1976-78 were not passed on to farmers, in effect resulting in farmers' subsidizing development of other economic sectors. However, when world commodity prices began to decline in 1978-79, growing oil export revenues enabled Cameroon to continue to increase farm prices annually. Producer price increases have equalled or exceeded inflation. Raising real farm income has been an important element of the Government's effort to encourage increased production. The rice-producer price in particular has continued to climb well above the world price as part of a Government program to spur domestic rice production and reduce growth in imports.

By 1980/81, the losses caused by Cameroon's price policies reduced the size of the agricultural budget. Because of the smaller budget, subsidized fertilizers and pesticides were not delivered to farmers when they were needed, resulting in reduced cocoa and coffee production. Cocoa and coffee production recovered in 1981/82 and 1982/83 following good weather and financial assistance to the ONCPB from the general Government budget. In addition to price supports, the Government subsidizes fertilizers, insecticides, and herbicides for cotton, coffee, and cocoa. Also, farmers receive replanting subsidies as an incentive to replace aging coffee and cocoa plants. Despite much public discussion of its food self-sufficiency goals, however, Cameroon did not give much actual support to its traditional food production sector until the early eighties. The Government has provided guaranteed producer prices, subsidized inputs, and agricultural research almost exclusively for export crops, primarily coffee and cocoa. Investments in food crops have been largely limited to rice and wheat.

The Government has made a considerable effort to increase production of rice and wheat in order to offset rising imports resulting from rapidly growing domestic demand. Cameroon has three rice production projects,

[3]Government institutions have a marketing monopoly on and provide official producer prices for cocoa, coffee, cotton, palm kernels, groundnuts, bananas, tobacco, palm oil, rubber, and rice.

of which two are irrigated and one is rainfed. The projects provide rice farmers with inputs and services. These interventions have proved too costly to make domestic rice competitive with imported rice, although yield improvements have been encouraging. In 1980/81, rice projects produced 37,951 tons of rice, with an average yield of 4.12 metric tons per hectare. Rice production in the traditional sector has declined rapidly, producing 7,625 tons in 1980/81, with an average yield of only 0.73 metric ton per hectare.

A poor transportation infrastructure has constrained Cameroon's ability to meet growing demand for rice. Two-thirds of the retail price of rice represents transportation costs; farmers receive less than one-third of the retail price. To save freight costs, traders illegally sell most of the domestic rice, which is produced in the north, over the border to Chad, Nigeria, and the Central African Republic, or even forfeit the rice rather than pay freight costs to ship it south to the major cities. Consequently, most of the rice consumed in ur-

Table 7—Cameroon producer prices and world prices for selected major export crops

Year	Coffee			Cocoa		
	Cameroon	World		Cameroon	World	
	CFA/kilogram	*U.S. cents/pound*		*CFA/kilogram*	*U.S. cents/pound*	
1970	131	22	51	85	14	31
1971	144	24	45	85	14	24
1972	142	26	50	90	16	29
1973	146	30	62	100	20	51
1974	153	29	68	120	23	71
1975	174	37	72	130	28	57
1976	221	42	142	150	28	93
1977	275	51	229	220	41	172
1978	275	55	155	260	52	154
1979	300	64	170	290	62	149
1980	330	71	151	300	645	118
1981	345	58	116	310	50	94
1982	365	50	126	330	46	79
1983	374	47	128	370	47	96

	Cotton			Rice		
	Cameroon	World		Cameroon	World	
	CFA/kilogram	*U.S. dollars/ton*		*CFA/kilogram*	*U.S. dollars/ton*	
1970	30	109	638	16	58	114
1971	31	112	747	17	62	89
1972	31	123	799	18	71	101
1973	38	170	1,367	20	90	205
1974	43	178	1,436	26	108	466
1975	43	201	1,170	28	131	301
1976	55	230	1,709	34	142	213
1977	65	264	1,571	75	305	223
1978	65	288	1,586	100	442	319
1979	70	329	1,700	105	493	273
1980	80	379	2,066	105	498	340
1981	90	331	1,851	110	404	398
1982	90	274	1,598	120	365	260
1983	105	292	1,854	NA	NA	NA

NA = Not available.

Source: (*4, 8*).

ban areas is imported. Commercial wheat production in Cameroon has proved unsuccessful. Expectations that Cameroon might be able to reduce its wheat imports of about 160,000 tons per year were not met. Production reached a maximum of only 1,550 tons in 1979/80.

Despite the Government's lack of emphasis on the traditional farming sector, production of major food crops has increased faster than production of the principal cash crops. However, growth in Cameroon's agricultural production, although favorable, generally has masked stagnant or declining rates of productivity. These trends result from major agricultural constraints, including inadequate transportation and distribution of inputs and production, inadequate storage facilities leading to substantial spoilage and waste, inadequate development of institutions responsible for research and credit, aging of cocoa and coffee plantations, aging of the rural population, plant disease, and low returns to traditional cultivation methods.

Prospects for Cameroon Agriculture

The Cameroon Government is concerned about the long-term implications of these problems for maintaining a strong agricultural sector. Several recent Government studies have addressed prospects for Cameroon's agricultural sector and the national food balance. The *Bilan diagnostique du secteur agricole de 1960 a 1980* presented a critical appraisal of the downward trends in Cameroon's agricultural productivity and the effects of increasing cash crop prices on creating disincentives for food production (*8*). Although Cameroon is currently self-sufficient in most crops, except wheat and rice, food deficits will probably be considerable by 1990 if present trends in production and consumption continue, according to analyses on which Cameroon's fifth 5-year plan is based (*8, 9, 10, 11, 15*). Today's surplus of roots and tubers will probably diminish and the deficits in cereals, fruits, and vegetables may become serious. As the pace of urban migration increases over the next two decades, the decreasing number of farms will have to increase output by an estimated 40 percent by the year 2000 if Cameroon is to maintain its present level of food self-sufficiency. The Government is beginning to realize that increasing farm productivity and providing the rural population with incentives to continue farming are crucial.

Consequently, agriculture's allocation in the current 5-year plan was increased to 23.7 percent from 15.3 per-

Table 8—Index of Cameroon producer prices and world prices for selected major crops[1]

Year	Cameroon consumer price index	Coffee		Cocoa		Cotton		Rice	
		Cameroon	World	Cameroon	World	Cameroon	World	Cameroon	World
				1975 = 100					
1970	61	75	70	65	54	70	54	57	38
1971	63	83	62	69	43	72	64	61	29
1972	68	82	70	69	52	72	68	64	33
1973	75	84	86	77	91	88	117	71	68
1974	88	88	94	92	125	100	122	93	154
1975	100	100	100	100	100	100	100	100	100
1976	110	127	197	115	164	130	146	121	71
1977	126	158	316	169	304	151	134	269	74
1978	142	158	214	200	273	151	136	357	106
1979	151	172	234	223	264	163	145	375	90
1980	165	190	208	230	209	186	177	375	113
1981	183	198	161	238	167	209	158	393	132
1982	208	210	175	254	140	209	137	429	86
1983	240	215	177	285	168	244	158	NA	NA

NA = Not available.

[1]See table 7 for producer prices in CFA and dollars.

Source: (*4, 8*).

cent in the fourth plan (table 9). The national food plan (*Plan alimentaire a long terme*), prepared as part of the fifth plan, recommended that agricultural investment be concentrated in the traditional sector, contrary to previous plans in which most agricultural investment was concentrated in the modern sector (*10*).

The plan's objectives are to achieve a 3.3-percent growth in food production and to improve the quality of life in rural areas by improving health conditions and extending water and electricity. The strategy to achieve these goals is to continue to guarantee fair and attractive farm prices, increase farm productivity, increase farm extension services, and commercialize agriculture and food processing.

Based on Government studies of prospects in the agricultural sector, objectives for increasing production under the fifth plan are considerably more modest than under the fourth plan (table 10). Specific programs undertaken to meet food production objectives are expanding the role of Societe de Developpement du Coton au Cameroun (SODECOTON) and Societe de Developpement du Cacao (SODECAO), two agencies created to promote development of cotton and cocoa, to provide inputs for locally grown food crops, primarily millet, sorghum, and bananas.

Official producer prices for cash crops will continue to increase. The national food plan addresses the problem of insufficient price incentives for food crops relative to export crops by proposing a food-crop price policy to be administered by expanding the roles of existing trading offices, development societies, cooperatives, or even private traders.

Table 9—Sectoral investments under fourth and fifth plans

Sector	Investment	
	Fourth plan, 1976/77-80/81	Fifth plan, 1981/82-85/86
	Percent	
Primary sector	15.3	23.7
Secondary sector	31.5	16.4
Tertiary sector	6.5	7.7
Communication infrastructure	22.8	21.1
Social services	11.5	15.8
Equipment and research	12.2	15.3
Total	100.0	100.0

Note: Totals may not add due to rounding.
Source: (*11, 12, 13*).

Prices for both producers and consumers are determined by the free market. With the exception of rice, groundnuts, and bananas, food crops are traded in the private sector, with sizable seasonal price fluctuations because of poor storage and sizable regional price variations because of poor transportation. The Government has made some effort to keep urban food prices low by setting retail prices, but these policies are haphazard and poorly enforced.

As Cameroon's income and urbanization increase, effective food and agricultural policies will become more crucial to maintaining the desired balance between domestic food production and food imports. The development of a national food plan and a significant budgetary commitment indicate Cameroon's determination to prevent a serious erosion of its agricultural sector and to address the constraints to its ability to meet increasing domestic food requirements.

Trends in Food Imports

The value of Cameroon's agricultural imports increased nearly sixfold between 1970 and 1982, from $21 million to over $125 million, although food imports remained steady at only about 2 percent of GDP due to the strong growth in Cameroon's economy (table 11). In 1982, food imports represented 8 percent of total imports, compared with 9 percent in 1970.

Cameroon's agricultural imports comprise mostly the following commodities or commodity groups: rice, wheat, fish, alcohol, tobacco, poultry, beef, prepared meats, dairy, fruits, and vegetables. In 1970, these major food items accounted for 87 percent of food imports. However, the share of the food items included in this study declined to 71 percent by 1980 as imports became increasingly diversified (fig. 1). Cereals, composed almost entirely of wheat and rice, are the single most important category of Cameroon's agricultural imports. In 1970, cereals accounted for 37 percent of the value of agricultural imports, declining to 19 percent in 1982 with increasing import diversification.

Sources of Agricultural Imports

France controls a dominant, although slightly declining, share of Cameroon's agricultural imports (fig. 2). Important ties between France and its former colony, Cameroon, provide French and other European products with a competitive market advantage. Many of

the major trading companies are integrated importing, wholesaling, and retailing operations, which are owned and managed by the French, English, and Dutch. One advantage of this integrated organization is that the trading companies' imports can be declared at customs at wholesale value.

Probably the most important commercial tie between Cameroon and France stems from the free convertibility of Cameroon's Communaute Financiere Africaine (CFA) to the French franc at the fixed exchange rate of 50 CFA = 1 franc. Cameroon is one of 14 former French territories that are part of the franc zone and use the French franc-pegged CFA as a national currency. The fixed rate limits risks to Cameroonians from foreign exchange fluctuations, particularly since 1981 when the dollar began to gain strength against the French franc, making imports from the United States more expensive. Forward financing by U.S. suppliers, which would eliminate Cameroonians' exchange rate risks, is rare. Other advantages enjoyed by the French are cheaper, more frequent shipping and established consumer recognition of French food products.

The French market share is by no means invulnerable, however, and competitively priced and aggressively marketed products can be successfully introduced. Spurred by the growing number of Americans in Cameroon, mostly associated with the petroleum industry, grocery stores are increasingly interested in stocking basic American food items such as canned tomatoes. With French-language packaging, competitively priced items could be successfully introduced to non-American consumers as well.

Volume is a frequently cited problem in exporting to Cameroon. Although the volume of imports to Cameroon and to neighboring countries that import via Cameroon is increasing, prospective exporters will have to organize Cameroon's very fragmented import sector. Increasing market shares in Cameroon will require adopting the French strategy; that is, exporters must have a greater involvement in the Cameroon import sector. Cameroon's Chamber of Commerce, Industry, and Mines suggests that prospective exporters to Cameroon either establish their own local distribution agencies or work directly with Cameroonians to aggregate orders.

Table 10—Agricultural production goals and actual production

Commodity	1980-81		1974-75 to 1980-81		Fifth plan production goals for 1985-86[2]	Planned average annual growth rate of production, 1979-80 to 1985-86
	Fourth plan production goal[1]	Actual production	Planned average annual growth rate of production	Actual average annual growth rate of production		
	Metric tons		*Percent*		*Metric tons*	*Percent*
Cocoa	200,000	120,000	9.3	2.8	139,000	3.0
Coffee (robusta)	100,000	70,200	6.8	−.5	90,900	5.1
Coffee (arabica)	60,000	27,400	11.0	2.3	38,300	6.0
Sugar	80,000	61,000	22.6	28.5	90,000	8.3
Cotton	125,000	117,000	20.9	17.0	128,000	8.1
Rice	60,000	26,400	30.0	11.6	77,400	18.6
Wheat	30,000	1,000	—	—	5,000	32.2
Cassava	1,000,000	675,000	5.0	−5.0	657,000	.6
Bananas	130,000	83,000	9.8	4.3	100,000	3.8
Groundnuts, unshelled	121,000	76,000	5.0	−5.0	100,000	3.6
Tobacco	6,200	1,800	9.0	0	2,750	6.4
Plantains	2,400,000	950,000	14.7	−1.5	2,430,000	.6
Millet and sorghum	500,000	400,000	8.5	2.4	434,000	1.0
Maize	600,000	400,000	8.5	5.3	537,000	4.6
Cocoyams (taro-macabo)	900,000	800,000	4.3	.3	850,000	.8

— = Not applicable.
[1]The fourth 5-year plan covered 1976/77 to 1980/81.
[2]The fifth 5-year plan covers 1981/82 to 1985/86.
Source: (*2, 11, 13, 16*).

Table 11—Value of food imports[1]

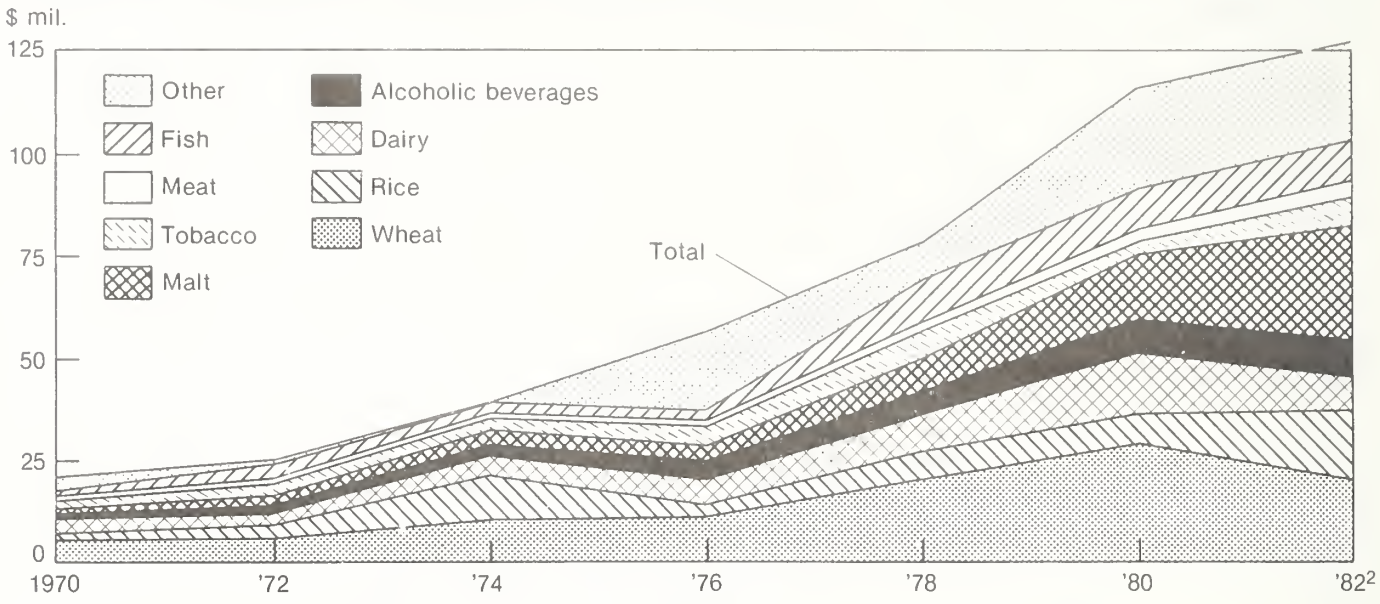
Commodity	1970	1971	1972	1973	1974	1975	1976
				1,000 dollars			
Wheat[2]	5,251	5,444	5,301	6,988	9,790	14,198	10,708
Rice	2,421	3,124	3,605	5,331	11,419	928	2,886
Prepared vegetables	1,050	1,021	798	1,619	1,173	1,476	
Fresh vegetables	440	377	387	501	580	784	847
Milk[3]	2,505	2,640	2,351	3,746	4,120	6,188	4,406
Poultry	59	72	84	119	117	94	117
Beef	67	54	57	50	57	38	115
Mutton and lamb	13	31	8	7	11	22	35
Pork	1	0	1	1	0	0	1
Prepared meats	722	481	652	797	808	853	1,213
Fish	2,478	2,777	3,602	3,257	3,343	3,528	3,393
Alcoholic beverages	1,833	1,444	1,690	2,066	2,601	3,219	3,611
Tobacco	1,752	2,287	3,067	2,614	3,324	4,983	4,661
Other	2,360	3,207	2,953	1,178	1,180	9,852	22,381
Total	20,952	22,959	24,556	28,116	38,969	45,860	55,850
	1977	1978	1979	1980	1981	1982	1983
				1,000 dollars			
Wheat[2]	17,795	20,472	19,440	29,134	21,003	20,243	17,971
Rice	6,175	6,709	14,054	6,813	3,581	3,906	4,238
Prepared vegetables	1,951	1,758	5,682	6,013	5,500	5,019	NA
Fresh vegetables	729	1,293	1,722	1,560	1,630	1,642	NA
Milk[3]	6,753	7,110	10,414	11,878	7,994	6,605	7,068
Poultry	166	198	344	550	720	750	794
Beef	263	221	209	404	421	919	NA
Mutton and lamb	74	122	165	117	95	346	367
Pork	2	0	0	3	59	165	NA
Prepared meats	1,655	2,004	1,928	2,204	3,551	2,302	NA
Fish	5,908	11,476	8,245	10,054	7,477	8,348	NA
Alcoholic beverages	4,584	4,513	8,979	8,443	7,115	6,760	7,003
Tobacco	7,336	6,270	6,088	4,500	6,264	6,850	7,228
Other	15,072	15,649	29,904	36,919	55,093	61,233	NA
Total	68,843	77,795	107,174	116,004	120,502	125,088[4]	NA

NA = Not available.
[1]Imports, cost-insurance-freight.
[2]Includes wheat flour.
[3]Mostly nonfat dry milk.
[4]Estimate.

Source: (*3, 7*).

Figure 1

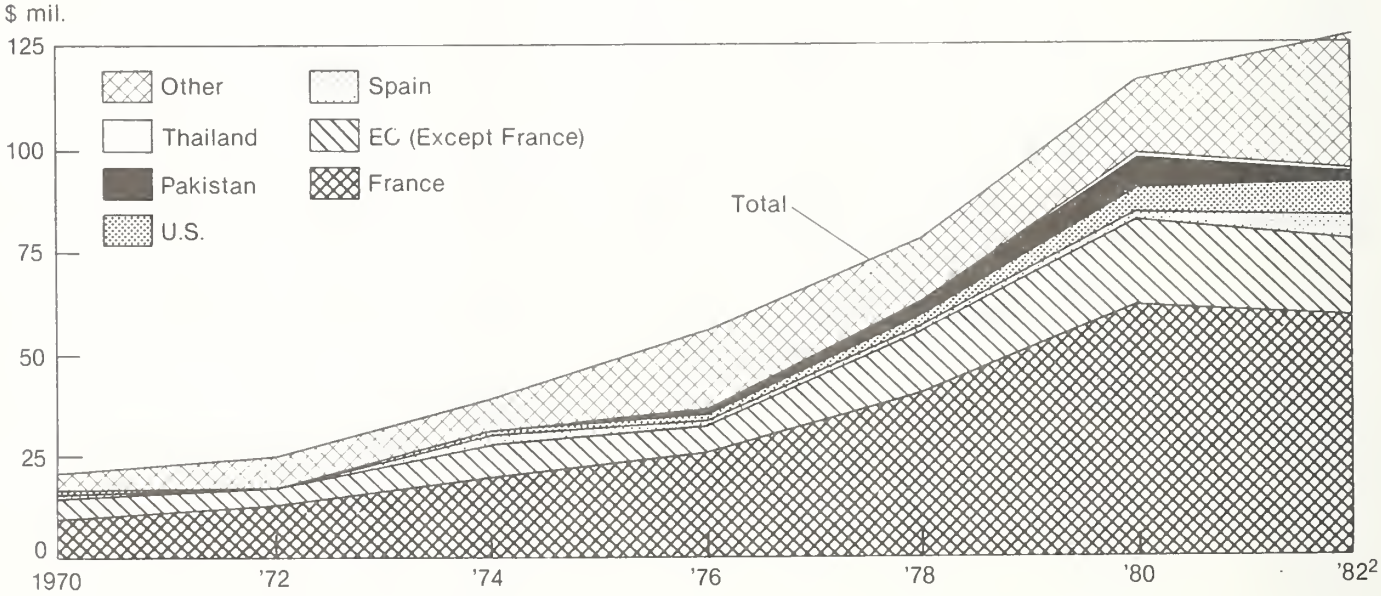
Commodity Composition of Cameroon's Agricultural Imports[1]



[1]Includes food, beverages and tobacco [2]Other and total are estimated for 1982.
Source: (*3, 7*).

Figure 2

Market Shares of Cameroon's Agricultural Imports[1]



[1]Includes food, beverages, and tobacco. [2]Other and total are estimated for 1982.
Source: (*3, 7*).

Agricultural Import Sector

Agricultural importing and distributing in Cameroon is handled by private firms, most of which are located in Douala, the major port city. There were 744 importers registered in Cameroon in 1979. However, the sector is dominated by a few large, generally European, firms covering a wide line of products. Some of these companies are distribution subsidiaries for French food corporations, directly importing their food products. French companies also own some of the largest supermarket chains. These companies distribute imports to their own retail outlets and sell wholesale to independent supermarkets. Even major trading firms sell in small quantities—as small as one case of a product—to retailers and to traders from other parts of Cameroon.

Score is a French-owned chain of supermarkets such as this one in Yaounde.

Cameroonians are increasing their presence in the import sector, however, aided by nationalistic economic policies. Since 1976, foreign-owned trading firms have been required to have their headquarters in Cameroon. Recent legislation, intended to increase Cameroonians' roles in trading, has limited foreign firms' ability to bring in their own staff. The Cameroonian presence in the trading sector should increase as oil money makes more credit available to finance the frequently undercapitalized Cameroonian operations. These gradual changes in the structure of the agricultural import sector are expanding the opportunities for introducing American products.

Agricultural Import Policies

Cameroon has a liberal trade system and few restrictions on imports or currency exchange. There are no exchange controls on Cameroon's CFA within the French franc area. However, transactions above 500,000 CFA must be reported for statistical purposes. Exchange controls between the CFA and all other currencies are administered by the Ministry of Finance. In practice, these transactions are unrestricted.

All importers are required to have import licenses issued by the Ministry of Economy and Planning for imports valued at 500,000 CFA or more. Licenses entitle importers to purchase the necessary foreign exchange. The system is administered liberally and in practice licenses are issued freely.

Imports are also regulated by the annually revised general exchange program of import restrictions and regulations prepared by the Ministry of Economy and Planning (*14*). Few imported food commodities are regulated under this program, except that sugar, rice, wheat flour, and vegetable oil require special import licenses. The purpose of special licensing requirements for these commodities is to protect domestic production, to ration supplies, and to enable statistics to be compiled.

Because rice imports compete with costly Government efforts to promote local production, rice is also subject to a matching import/domestic purchase program called "jumelage." In order to get rice import licenses, rice importers must agree to purchase a quota of domestic rice. In 1981, traders had to purchase 1 kilogram (kg) of domestic rice in order to import 5 kg of rice. Except for rice, the import quantities of the other specially authorized commodities are not restricted in practice.

The Government sets retail prices for imports as the cost-insurance-freight (c.i.f.) price plus a fixed margin. As is the case with domestic food-price regulations, the absence of enforcement results in the widespread lack of compliance with these regulations.

Cameroon has publicly announced its intent to diversify its sources of imports. Although no specific steps have been taken in this direction by the Government, official contacts between the Cameroon and U.S. Governments on commercial matters have increased sharply since a cabinet-level U.S. trade mission visited Cameroon in early 1982. One outcome of these contacts is the extension of U.S. Government-guaranteed

loans to Cameroon for the purchase of U.S. agricultural exports. Cameroon's liberal trade system and the dominance of the private sector in importing make it unlikely that diversification will follow Government statements unless specific incentives are offered. However, the changing structure of the private import sector toward an increased role for Cameroonians, together with greater U.S. Government involvement in providing credit and in promoting trade, should support an expanding U.S. share of Cameroon's growing food imports.

Recent Trends and Projected Import Demand

This study analyzes Cameroon's demand for imports of 11 major commodities or commodity groups: rice, wheat, fish, poultry, beef, prepared/tinned meats, tobacco, alcoholic beverages, dairy products, vegetables, and fruits. The author analyzed import trends for the period 1965 to 1980 to project import demand for these commodities for 1985 and 1990 under four alternative sets of assumptions about growth in per capita income and domestic agricultural production.

The first set of assumptions uses trend projections based on a continuation of 1965-80 trends in income, import prices, and domestic production (table 12).

The second set of assumptions uses trend projections of production and import prices but assumes high income growth (table 13). Growth in personal income is projected at 7.5 percent annually during the eighties, compared with the trend projection of 5.9 percent annually. This high-income growth scenario could reflect several possible developments, including higher oil prices, higher commodity prices for Cameroon's other exports combined with increased agricultural exports, or particularly effective investment and development strategies in Cameroon. Because income growth and urbanization are closely correlated, the high-income scenario could also imply an accelerated pace of urbanization, which indeed seems already to be occurring.

The third set of assumptions uses trend projections of domestic agricultural production and import prices with a low projection of annual growth in personal consumption expenditure of 4 percent. This unlikely scenario could represent the effects of a deepening world recession, further declines in world prices for oil and agricultural commodities which are not offset by increased volume of oil sales, drought in Cameroon that reduced agricultural exports and increased food imports, declining agricultural productivity, or unsuccessful investments or development efforts.

The fourth set of assumptions postulates high growth in domestic food production based on the production goals of the fifth development plan, and a continuation of 1965-80 trends in import prices and personal consumption expenditures. The fifth plan production goals are higher than historical trends, but they are modest and achievable given the most favorable blend of weather and effective development efforts (table 10).

Table 12—Trends in population and economic indicators and projections

Year	Population	Private consumption expenditure	Consumer price index	Import index	Real private consumption expenditure	Real per capita gross domestic product
	Million	*Billion CFA*	------- *1975 = 100* ----------		*Billion CFA*	*1,000 CFA*
1965	6.1	113.0	56.1	43.0	201.0	49.0
1970	6.8	192.0	60.5	45.0	318.0	73.0
1975	7.5	408.0	100.0	100.0	408.0	77.4
1980	8.6	1,088.0	165.0	173.0	659.0	109.1
1983	9.5	1,600.0	215.0	226.0	742.0	125.2
1985	10.0	2,158.0	255.0	275.0	905.0	134.4
1990	11.6	4,556.0	387.0	425.0	1,177.0	152.1

Source: (5) and USDA projections.

Table 13—Alternative trends in income and domestic agricultural production

Year	Private consumption expenditure scenarios			Rice		Poultry		Beef	
	1	2	3	2	3	2	3	2	3
	Billion CFA			*1,000 metric tons*					
1981	688	650	711	24	39	12.0	12.8	48.6	51.3
1982	719	695	768	25	47	12.4	13.7	50.3	55.0
1983	752	742	830	25	55	12.9	14.7	51.9	59.0
1984	785	793	896	26	66	13.3	16.0	53.4	63.0
1985	821	847	968	27	78	13.8	16.8	55.2	67.0
1986	858	905	1,045	27	92	14.3	17.9	56.9	72.0
1987	896	967	1,129	28	110	14.8	19.1	58.6	77.0
1988	937	1,032	1,219	29	130	15.2	20.5	60.2	82.0
1989	979	1,103	1,317	30	154	15.7	21.9	61.9	88.0
1990	1,023	1,117	1,422	30	182	162.0	23.3	63.5	94.0

	Tobacco		Dairy		Vegetables		Fruit	
	2	3	2	3	2	3	2	3
	1,000 metric tons		*1975 = 100*					
1981	2.6	3.1	129	133	99	117	131	121
1982	2.5	3.3	133	138	101	125	135	129
1983	2.4	3.6	137	143	104	133	138	138
1984	2.3	3.8	140	149	106	142	141	141
1985	2.2	4.0	144	155	109	152	144	157
1986	2.1	4.4	148	161	111	162	145	167
1987	2.0	4.9	156	174	113	185	152	191
1988	1.9	4.9	156	174	116	185	162	191
1989	1.8	5.3	159	180	118	198	154	204
1990	1.7	5.6	162	186	120	212	156	218

Notes: 1 = Low growth
2 = Trend
3 = High growth

The analysis of Cameroon's 1965-80 food imports provides information on several questions. First, it provides insights into the behavior and relative importance of the key factors underlying Cameroon's agricultural import demand. Second, the analysis illustrates the differences in the nature of import demand for the 11 commodities. Third, projections show the magnitude of future import demand assuming a continuation of present trends in per capita income, import prices, and domestic production. Finally, the alternative assumptions about future income and agricultural production show the significance of variations in these underlying trends for the quantity of Cameroon's future agricultural imports.

Determinants of Aggregate Agricultural Import Demand

While there are important variations among commodities, Cameroon consumers are in general highly responsive to changes in income and price. As income increases, demand for food imports increases rapidly, particularly for cereals and convenience and luxury foods. Imports generally decline as import prices increase, but not to the same degree that growth in income increases imports.

Incomes in Cameroon are rising, but the average per capita annual income (estimated at $880 in 1981) is still relatively low by world standards. Likewise, dietary patterns in Cameroon are typical of a low-income

Mary E. Burfisher

This typical street scene in Yaounde shows the rapid growth of urban areas as Cameroon's economy grows.

country. There is heavy consumption of domestically produced cereals (millet, sorghum, and maize) and starchy staples like cassava and plantains, with relatively low per capita consumption of items like rice, wheat, and meats (table 14). In Douala, where incomes are the highest in the country, consumption of starchy staples is high, but annual per capita consumption of rice and wheat is only 23 and 30 kilograms, respectively. This intake contrasts with average national per capita consumption of rice and wheat in neighboring Nigeria of 66 and 128 kilograms annually, and in the Ivory Coast of 54 and 23 kilograms annually. Consumption of millet and sorghum is highest in subarid northern Cameroon where these drought-resistant cereals are grown.

Low per capita income and the high proportion of total income spent on food account for Cameroon consumers' ready translation of increased income into increased food, and food import, demand. Low, but rising, incomes and current consumption patterns demonstrate the potential for continued rapid import growth to meet demand for increased quality and diversification in diets. Cameroon consumers' price sensitivity also bears out exporters' and retailers' observations that at the present income level, the fastest growing imports are lower priced, more basic food items.

Relating average national income and price to per capita import demand generalizes the varied consumption patterns within Cameroon. Most food imports are consumed in urban areas, primarily Douala, Yaounde, and other southern cities, where incomes are relatively higher and transportation links to ports are better. The diet in these urban areas includes more rice, wheat, and convenience foods than in the rest of Cameroon (table 15). Per capita rice consumption in Douala, for example, is 5 to 11 times higher than in rural areas (*18*). Most of the cereal consumed in the north is local-

Table 14—Average daily per capita calorie consumption of major foods

Food item	1966	1970	1975	1978	1980
			Calories		
Wheat	35	56	63	91	93
Rice	19	22	22	61	82
Maize	282	268	359	268	271
Millet	383	372	340	372	329
Cassava	218	189	212	230	232
Yams	42	54	83	84	83
Pulses	62	78	86	94	98
Groundnuts	141	189	215	225	219
Beef and veal	21	27	27	32	30
Mutton	6	6	5	5	5
Pork	9	12	20	23	26
Poultry	2	4	4	4	5
Dry milk	—	3	2	3	3
Other	1,002	889	959	957	963
Total	2,222	2,169	2,397	2,449	2,439

— = Less than 1 calorie.

ly produced millet and sorghum. Corn continues to be the predominant cereal for human consumption in Cameroon. Food-corn imports other than for relief have been negligible. However, feed-corn imports should increase with the planned development of Cameroon's beef and poultry industries.

Changes in urban demand for imports may be more rapid than is indicated by this analysis, which is based on national averages. Preferences of the urban consumer for rice, wheat, and processed foods will probably build more rapidly than the national average and, if the pace of urbanization quickens, import demand may increase faster than aggregated national trends suggest.

For most commodities, an increase in domestic production tends to reduce imports although in some cases there is a positive relationship between domestic production and imports with imports increasing despite domestic production increases. This relationship results from the rapid growth in per capita import demand, in which growth in consumer demand for some commodities outstrips concurrent increases in domestic production. For most commodities, domestic production is less important in explaining import trends than is the relationship of prices and income.

Table 15—Estimated composition of diets by region, 1980

Food item	Yaounde	Douala	Other southern	Northern urban	Northern rural	West, northwest, southwest, rural	South-central, littoral, east, rural	National average
				Kilograms per year per person				
Cereals:								
Millet/sorghum	2	—	—	121	149	—	—	40
Corn	42	52	63	15	15	80	31	46
Rice	16	23	11	15	3	4	2	7
Wheat	26	30	15	16	5	6	7	11
Subtotal cereals	86	105	89	167	172	90	40	104
Roots and tubers:								
Plantains	147	66	91	10	4	97	204	90
Cassava	34	30	38	37	41	44	98	50
Sweetpotatoes	5	15	17	8	8	24	34	19
Yams	5	10	14	1	1	24	5	10
Cocoyams (taro-macabo)	73	69	56	20	10	63	68	49
Potatoes	10	17	14	9	2	15	2	9
Subtotal roots and tubers	274	207	230	75	66	267	411	227
Legumes:								
Groundnuts	22	19	20	21	14	17	15	17
Beans and peas	11	12	10	14	14	10	4	10
Pumpkin seeds	7	3	3	2	2	2	8	4
Sesame	1	—	—	3	3	—	2	1
Subtotal legumes	41	34	33	40	33	29	29	32
Other vegetable products:								
Bananas	26	31	18	3	3	25	17	17
Fruits and vegetables	26	42	30	31	30	30	20	29
Vegetable oil	17	16	15	11	10	12	15	13
Subtotal other vegetables	69	89	63	45	43	67	52	59
Total	470	435	415	327	314	453	532	422

— = Not consumed in significant amounts.

Source: (*18*).

Variations in Import Demand Among Commodities

The major agricultural imports of Cameroon during the past decade have been rice, wheat, fish, dry milk, and alcoholic beverages or barley malt for local brewery operations. Not surprisingly, there is a strong, positive relationship between income growth and growth in imports for these commodities, with the exception of alcohol. There is also a strong, positive relationship between income and imports of vegetables, until recently a less important import commodity. As income increases, the increased demand for these commodities ranges from slightly less (fish) to nearly double (rice) the proportionate change in income (table 16). With increasing incomes and urbanization in Cameroon over the next decade, spurred by oil earnings, these commodities are expected to continue to lead import growth (table 17). At the same time, the sensitivity of demand for these leading commodities to price indicates that successfully competing for a share of these markets will crucially depend on the ability to introduce these items at competitive prices.

Recent Trends and Projected Agricultural Import Demand by Commodity

Wheat. The quantity of wheat imports grew rapidly during the seventies, averaging a 14-percent increase per year with France accounting for most of the increase (tables 18 and 19). Wheat imports have continued to climb in the eighties, reaching an estimated 120,000 tons in 1982. One factor in this rapid growth is the nationwide consumption of imported wheat, in contrast to the predominantly urban consumption of most other imported foods. Cameroon's wheat imports are distributed to numerous small bakeries throughout the country, which produce bread, biscuits, and other bakery products. About two-thirds of wheat imports are composed of flour, despite an excess capacity of nearly 50 percent in the country's sole flour mill. Import licenses are required for flour, but not for unmilled wheat, in order to encourage fuller use of domestic milling capacity. There is a substantial French ownership interest in Cameroon's sole wheat mill, the Societe Camerounaise de Minoterie (SCM) in Douala. The mill purchases its soft wheat from France and makes minimal purchases of U.S. durum wheat, which is used to make pastas.

Table 16—Elasticities of income, price, and domestic production for food import demand[1]

Commodity	Income	Price	Domestic production
Rice	1.78	−1.34	−0.84
Wheat	1.11	−.99	NA
Fish	.92	−.11	NA
Tobacco	−.20	−.15	.06
Alcoholic beverages	NA	−.82	NA
Beef	1.00	−1.43	−3.45
Poultry	.90	−1.98	−.96
Tinned meats	1.00	−1.52	−1.79
Dairy index	.23	−.63	−1.83
Vegetables index	1.21	.28	−.35
Fruit index	.57	.38	.59

NA = Not applicable.
[1]See appendix I for detail on the statistical significance of the elasticities.

Wheat imports are not as sensitive as rice to changes in income, but the relationship is still strong enough to characterize wheat as a preferred good. As incomes increase, Cameroon consumers respond with a slightly greater than proportionate increase in wheat purchases. Cameroonians are nevertheless sensitive to the price of wheat, although to date price has not been important in determining market shares of Cameroon's wheat imports. Given the institutional links between France and Cameroon's single wheat mill, entry into Cameroon's wheat market will continue to be extremely difficult but not impossible. Bakers in neighboring Ivory Coast are beginning to request flour made from hard red U.S. wheat, which can be used to make higher protein breads at lower cost. U.S. Government-guaranteed credit for Cameroonian purchases of U.S. wheat, which was made available in 1983 for the first time, should also help support U.S. entry into this wheat market.

If present trends in income and price continue, Cameroon's wheat imports are expected to nearly quadruple during the eighties to 460,929 tons in 1990 from 116,103 in 1980, but could climb to over 570,000 tons by 1990 with high income growth or rapid urbanization (table 17).

Rice. Trade data on Cameroon's rice imports have been misleading and confusing in recent years, with imports appearing to have boomed since the late seventies. According to the export data of its major suppliers, Pakistan and Thailand, Cameroon's rice imports increased from 33,771 tons in 1977 to 421,836 tons in 1982. Several factors contribute to reported imports being greatly in excess of Cameroon's current estimated import requirements of 20,000 to 40,000 tons of

Table 17—Projected food import demand

Commodity	Average 1978-80	Low income growth; trend production		Trend income growth; trend production		High income growth; trend production		High production; medium income growth	
		1985	1990	1985	1990	1985	1990	1985	1990
				Metric tons					
Rice	28,020	48,466	75,600	52,212	98,914	64,978	135,864	28,127	30,888
Wheat	112,715	299,838	395,965	308,916	460,929	359,987	570,708	—	—
Tobacco[1]	1,360	—	—	1,521	1,817	—	—	1,667	2,005
Alcoholic beverages[2]	27,261	—	—	24,438	28,461	—	—	—	—
Poultry	171	213	289	224	336	247	389	184	239
Beef	40	38	46	41	56	44	65	22	16
Tinned meats	1,151	1,435	2,011	1,512	2,364	1,689	2,787	1,511	2,438
Fish	14,613	22,556	28,053	23,503	32,677	26,246	37,981	—	—
				1975 = 100					
Dairy	165	183	243	185	253	190	262	172	207
Vegetables	200	240	290	252	346	293	432	225	287
Fruits	126	121	117	130	131	133	141	123	150

— = Not applicable.
[1]Income is not a significant determinant of tobacco imports.
[2]Alcoholic beverage imports are regressed on price only.

Table 18—Wheat imports by supplier

Year	France	United States	Other	Total
		Metric tons		
1970	31,349	0	301	31,650
1971	23,870	86	0	23,956
1972	41,002	84	1	41,087
1973	45,390	45	0	45,435
1974	43,027	84	0	43,111
1975	36,324	164	0	36,488
1976	52,400	71	0	52,471
1977	61,900	0	270	62,170
1978	74,800	272	0	75,072
1979	64,659	0	0	64,659
1980	63,621	285	0	68,906
		1,000 dollars		
1970	3,013	0	21	3,034
1971	2,172	18	0	2,190
1972	3,537	12	0	3,549
1973	3,695	8	0	3,703
1974	7,776	27	0	7,803
1975	8,839	52	0	8,891
1976	7,140	29	0	7,169
1977	11,748	0	104	11,852
1978	12,310	80	0	12,390
1979	10,527	0	0	10,527
1980	18,653	67	0	18,720

Source: (3, 7).

rice annually (table 20). First, the world's major rice exporters generally report a single destination for rice, such as Cameroon, whereas the rice may ultimately be sold anywhere in the region. This pattern of reporting stems partly from stiff competition and the incentive to protect markets, and partly from the sales of rice en route to destination. Confusion is compounded in the case of Cameroon because its ports serve as a clearinghouse for imported goods, including rice, destined for Nigeria, Chad, and the Central African Republic. In addition, foreign exchange controls and import controls in neighboring Nigeria have given rise to sizable, illegal rice re-exports from Cameroon. Much of the higher quality rice which is parboiled and which has a lower percentage of broken grain is believed to be re-exported to Nigeria, while rice consumed in Cameroon has a high proportion of broken grains.

Rice is a preferred good in Cameroon, with demand for rice imports increasing at 1.8 times a proportionate increase in income. As in other developing countries, increased rice consumption is linked with urbanization and the resulting shift in consumer demand toward more convenience foods. Most imported rice is consumed in urban areas, where rice consumption is 5 to 11 times higher than in rural areas (table 15).

The very strong negative relationship between rice price and rice imports corresponds with Cameroon's historical

pattern of rice imports. Price is an important determinant of the quantity and quality of rice imported into Cameroon. Most imported rice consumed in Cameroon is of low quality and is purchased from Pakistan and Thailand. Price is also an important determinant of market suppliers. Rice imports from Thailand soared since 1981 from almost nothing in previous years as Thailand's rice prices began to decline compared with those of Pakistan. U.S. rice exports to Cameroon are relatively small, representing only 1 percent of Cameroon's total rice imports. U.S. exports are mostly long grain, parboiled rice, costing roughly twice as much per ton as Asian rice.

Domestic rice production has a significant influence on the quantity imported. However, the poor condition of Cameroon's transportation infrastructure prevents domestic production from reaching urban areas where most rice is consumed. The relationship between rice production and rice imports may consequently be more representative of a relationship between rice imports and agricultural production generally, with rice imports being a substitute for many domestically produced commodities during years of poor harvests.

If present trends in income, price, and domestic production continue, rice imports could more than double between 1980 and 1990 to nearly 100,000 tons per year (table 17). With high growth in income or, equivalently, a high rate of urbanization, rice imports could rise to over 135,000 tons per year by 1990. Successful efforts by the Government to increase domestic pro-

Table 19—Wheat flour imports by supplier

Year	France	Federal Republic of Germany	Italy	Netherlands	Spain	United Kingdom	United States	Other	Total
					Metric tons				
1970	14,510	2,437	5,418	4	600	13	513	226	23,721
1971	30,502	509	4,801	4	740	10	11	2,749	39,326
1972	15,286	0	1,507	3	99	12	30	318	17,255
1973	14,366	1,800	2,963	2	200	21	707	915	20,974
1974	6,406	0	0	0	800	11	34	553	7,804
1975	16,870	0	0	2	630	5	15	1,521	19,043
1976	13,319	0	0	0	0	4	2,130	2,354	17,807
1977	16,516	1,700	0	2	0	10	1,086	3,264	38,707
1978	27,128	600	0	11	0	3	520	4,120	32,382
1979	35,108	0	0	0	0	0	0	0	35,108
1980	31,411	1,325	0	0	0	0	1,246	0	33,982
					1,000 dollars				
1970	1,345	211	511	2	60	3	55	30	2,217
1971	2,428	44	393	2	81	3	3	300	3,254
1972	1,575	0	125	2	13	4	8	27	1,754
1973	2,245	236	497	1	36	7	116	147	3,285
1974	1,700	0	0	0	215	5	10	57	1,987
1975	4,913	0	0	0	205	3	3	183	5,307
1976	2,899	0	0	0	0	3	382	255	3,539
1977	4,768	487	0	3	0	2	247	436	5,943
1978	6,939	163	0	15	0	2	219	744	8,082
1979	8,913	0	0	0	0	0	0	0	8,913
1980	9,742	434	0	0	0	0	238	0	10,414

Source: (3, 7).

World Bank Photo

A majority of Cameroon's food imports, such as this bagged grain, enters through Douala. Cameroon's ports serve as a clearinghouse for goods being shipped to other West African nations.

Table 20—Rice imports by supplier

Year	China	France	Italy	Pakistan	Thailand	United States	Other	Total
				Metric tons				
1970	43	1,640	14,167	0	0	204	805	16,859
1971	22	2,528	29,184	0	2	99	64	31,899
1972	0	625	26,562	0	4,545	205	617	32,554
1973	9,168	23	2,582	6,906	775	273	577	20,304
1974	12,247	250	4,384	0	1	129	4,583	21,594
1975	0	2	1,578	0	0	127	0	1,707
1976	1,009	296	7	5,513	1,415	203	1,959	10,402
1977	0	1	0	16,841	380	611	5,768	23,601
1978	3,919	5	0	7,088	1,999	1,519	3,518	20,048
1979	0	4	0	36,837	0	4,442	0	41,283
1980	0	30	0	20,337	0	346	0	22,700
				1,000 dollars				
1970	9	220	1,719	0	0	66	407	2,421
1971	3	279	2,791	0	1	39	11	3,124
1972	0	83	2,657	0	667	82	116	3,605
1973	3,128	15	675	1,185	118	121	89	5,331
1974	7,758	146	1,814	0	0	92	1,609	11,419
1975	0	4	831	0	0	93	0	928
1976	622	65	5	1,303	359	148	384	2,886
1977	0	1	1	4,320	190	269	1,494	6,275
1978	1,490	7	0	2,868	607	670	1,074	6,716
1979	0	7	0	12,010	0	2,037	0	14,054
1980	0	45	0	6,440	0	327	1	6,813

Sources: (*3*, *6*, *7*).

Table 21—Poultry imports by supplier

Year	France	Netherlands	United States	Other	Total
			Metric tons		
1970	57	9	0	1	67
1971	59	23	0	0	82
1972	50	29	0	1	80
1973	66	13	0	9	88
1974	61	9	0	3	73
1975	40	0	0	1	41
1976	50	0	0	7	57
1977	63	0	10	3	76
1978	85	3	4	6	98
1979	149	0	0	12	161
1980	231	0	0	22	253
			1,000 dollars		
1970	52	6	0	1	59
1971	53	19	0	0	72
1972	59	25	0	0	84
1973	96	17	0	6	119
1974	101	12	0	4	117
1975	91	0	0	3	94
1976	95	0	0	22	117
1977	134	0	21	11	166
1978	158	7	21	12	198
1979	319	0	0	25	344
1980	507	0	0	43	550

Source: (*3, 7*).

duction could offset import growth significantly, possibly reducing imports to around 30,000 tons per year in 1990. At the still relatively low level of personal income expenditure expected by 1990, most of the rice import demand will probably continue to be for a low-cost, lower quality product.

Meat. Meat imports are increasing rapidly with an index that rose from 100 in 1975 to 224 in 1979 and jumped to 601 in 1980. Growth in meat imports has been particularly pronounced since 1980, suggesting that trend projections may underestimate future import growth. The value of poultry imports increased from $334,000 in 1979 to $794,000 in 1983 while the value of beef imports more than quadrupled from $209,000 to $919,000 between 1979 and 1982. Most of the growth in fresh meat demand is for lower priced cuts. The total value of prepared and tinned meats has remained fairly stable, valued at $2.3 million in 1982.

Meat imports to Cameroon have increased rapidly with rising incomes, perhaps more dramatically than have wheat and rice imports. Meat imports have a very strong relationship to domestic supply, with imports declining sharply as domestic production increases.[4] This reflects consumers' preference for locally produced, fresh meats. Poultry is the preferred meat in Cameroon and accounts for the bulk of both domestic meat production and fresh meat imports (table 21). Poultry meat accounted for 42 percent of the volume of fresh or chilled meat imports in 1982, while beef accounted for 22 percent. Prepared and tinned meats, however, make up the major share of total meat imports to Cameroon, with import volume generally three to five times greater than fresh meat. Tinned

[4]An index of total meat production in Cameroon is a significant explanatory variable for imports of prepared meats. Cameroon does not have any industrial meat processing facilities.

Table 22—Milk imports by supplier

Year	Finland	France	Federal Republic of Germany	New Zealand	Netherlands	Nigeria	Switzerland	United States	Other	Total
					Metric tons					
1970	0	3,169	2	2,141	0	22	85	54	76	5,549
1971	0	2,606	62	2,091	0	5	21	131	20	4,936
1972	207	1,726	22	1,352	0	40	15	70	73	3,505
1973	172	1,584	315	1,675	799	39	27	0	159	4,770
1974	646	2,222	33	1,340	100	24	9	0	86	4,460
1975	333	1,942	30	1,467	630	29	21	16	189	4,657
1976	0	1,901	3	1,824	201	84	11	124	138	4,286
1977	0	3,036	307	2,193	621	222	25	379	243	7,026
1978	0	3,017	305	1,783	600	108	106	387	334	6,640
1979	0	4,211	70	3,166	0	0	0	679	64	8,190
1980	0	4,112	0	3,426	0	0	0	959	41	8,538
					1,000 dollars					
1970	0	1,598	1	800	0	4	19	37	46	2,505
1971	0	1,566	62	863	0	2	23	114	10	2,640
1972	185	1,260	18	749	0	9	17	61	52	2,351
1973	152	1,472	261	1,039	660	13	55	0	94	3,746
1974	701	2,206	24	1,016	94	6	21	0	52	4,120
1975	519	2,540	304	1,613	727	15	62	23	385	6,188
1976	0	2,149	5	1,689	179	33	25	210	116	4,406
1977	0	3,158	273	2,031	443	128	55	439	226	6,753
1978	0	3,826	199	1,637	343	94	372	309	330	7,110
1979	0	5,921	174	3,902	0	0	0	279	138	10,414
1980	0	5,914	0	5,548	0	0	0	390	26	11,878

Source: (*3, 7*).

meat is cheaper to transport, convenient to use, and needs no refrigeration, so it is well suited to the Cameroon market. All meat imports should increase significantly by 1990. Prepared and tinned meats should continue to be the leading meat import, reaching 2,000 to 2,800 tons. Poultry imports should range between 239 and 336 tons by 1990, from 171 in 1980. Beef imports will increase, but they could remain relatively low at 65 tons or less by 1990 (table 17).

Fish. The increase in fish imports represents a dramatic turnaround for Cameroon, which was formerly a fish exporter. According to exporters' trade data, imports of fish to Cameroon increased more than threefold in value during 1970-82, to $8.3 million (table 11). Most of these imports were of tinned or other preserved fish, of which nearly 70 percent were sardines. Imports of tinned and smoked fish are now among Cameroon's top imported commodities in terms of value. Fish imports come from a wide range of sources, but primarily from the Soviet Union, Norway, Morocco, and Spain.

Import demand for fish is determined more by income than by price, although only limited data are available for analysis. Although fish imports are not highly price-sensitive, competitive pricing is an important factor in successfully competing for this market. Fish imports should climb to 37,981 tons by 1990 from 14,613 tons in 1980 (table 17).

Dairy. Dairy imports have increased steadily, with an index of imports rising from 116 in 1975 to 179 in 1980 (tables 22-24). Most of the growth has occurred in dry milk. Without widespread home refrigeration, this should continue to lead growth in dairy imports. However, ultra-pasteurized milk, which does not need refrigeration, has good market potential, while canned condensed milk is already popular in both urban and rural areas.

Demand for dairy imports in Cameroon is positively linked with income, but it is relatively more sensitive to changes in price and domestic supply. With very limited prospects for growth in domestic dairy production, imports of powdered milk and canned condensed milk, and the local reconstitution of dry milk into a liquid form that needs no refrigeration present excellent potential market opportunities. Depending on whether Cameroon has low or high income growth, the index of dairy imports should increase to between 207 and 262 by 1990, from 180 in 1980 and 100 in 1975.

Table 23—Butter imports by supplier

Year	France	Netherlands	United Kingdom	Other	Total
			Metric tons		
1970	253	55	1	4	312
1971	259	24	1	1	285
1972	218	34	2	1	255
1973	261	22	1	2	286
1974	261	13	0	4	278
1975	261	11	1	13	285
1976	234	2	6	28	270
1977	313	5	42	37	397
1978	478	24	72	105	679
1979	335	1	53	7	395
1980	495	1	31	15	542
			1,000 dollars		
1970	151	38	1	1	191
1971	292	25	1	1	319
1972	318	48	2	1	369
1973	308	29	1	2	340
1974	407	21	0	7	435
1975	554	25	1	26	606
1976	366	4	7	56	433
1977	457	13	49	48	567
1978	808	44	90	160	1,102
1979	604	1	76	13	694
1980	1,825	3	54	69	1,951

Sources: (*3, 7*).

Vegetables and Fruits. Cameroon's vegetable imports, composed almost entirely of canned vegetables, are extremely sensitive to changes in income, increasing faster than a proportionate increase in income (tables 25 and 26). Canned vegetables, primarily tomatoes, are becoming an important convenience food in the urban diet. They are the quintessential inexpensive, basic food item that importers and retailers in Cameroon suggest has good sales potential in the Cameroon market. Vegetable imports increased rapidly during 1965-80, with consumption of processed vegetables rising even when prices increased, accounting for the unexpected positive relationship between import price and quantity. Consumption declined slightly with increased domestic vegetable production. If income, price, and domestic production trends continue, the index of vegetable imports is projected to grow to 346 by 1990, from 100 in 1975 and 235 in 1980. The particularly strong growth of vegetable imports during the late seventies suggests that growth in the eighties is likely to reach the levels suggested by the high income projections of 432 by 1990.

Fruit imports, which include fresh and processed fruits and fruit beverages, have increased steadily in recent years, with the index of fruit imports rising from 100 in 1975 to 132 in 1980. Fruit imports are projected to increase only modestly during the eighties. However, slow but steady growth in fruit imports has occurred mainly since 1972, so that the longer trend period may underestimate the future growth rate.

Alcohol and Tobacco. The combined imports of alcoholic beverages, malt, and tobacco are nearly equal in value to Cameroon's wheat imports (tables 27 and 28). Malt and tobacco are inputs for Cameroon's beer-brewing and cigarette-manufacturing industries, currently the only agriculture-related processing industries operating in the country, except for sugar refining and wheat milling. Wine is the most important of the imported alcoholic beverages, followed by whiskey and cognac. Importation of inexpensive wines in small, unbreakable containers for consumption outside the major urban areas, where transportation is hard on glass containers, should hold excellent marketing opportunities.

Table 24—Cheese imports by supplier

Year	Denmark	France	Netherlands	United States	Other	Total
			Metric tons			
1970	1	253	10	0	12	275
1971	3	281	3	0	9	296
1972	8	264	2	0	13	287
1973	4	248	8	0	16	276
1974	3	249	7	0	9	268
1975	3	273	5	1	2	284
1976	4	255	6	0	8	273
1977	7	319	8	0	4	338
1978	13	370	10	0	5	398
1979	4	320	1	0	5	330
1980	15	375	4	0	3	397
			1,000 dollars			
1970	1	388	11	0	25	425
1971	4	430	4	0	24	462
1972	13	471	3	0	31	518
1973	8	501	9	0	36	554
1974	8	586	8	0	24	626
1975	9	837	9	2	18	875
1976	10	707	11	0	25	753
1977	17	944	14	0	24	999
1978	37	1,246	28	0	37	1,348
1979	12	1,165	2	0	33	1,212
1980	37	1,429	10	0	26	1,502

Sources: (*3, 7*).

Analyses of alcoholic beverages and tobacco imports provide the least satisfying results in this study. Income has a negative relationship with tobacco and no significant relationship to alcohol. The past trends in imports of these two commodities help to explain these unexpected relationships. Imports of both commodities grew rapidly during most of the period in this study, 1965 to 1980, but declined in 1980. The sharp decline in tobacco imports in 1980 coincided with a relatively large gain in personal income. Tobacco imports rebounded in 1982 to 1,975 tons from 1,480 tons in 1980. However, the drop in imports in 1980 results in a significant underestimation of future demand, with the trend projection of 1,817 tons imported by 1990 already surpassed. The decline in alcohol imports since 1979 has been offset by increasing imports of barley malt and growing domestic production of alcoholic beverages. While alcohol imports are likely to continue to increase gradually, total consumption of alcoholic beverages is likely to increase even faster. The ability of expanding domestic output to keep pace will determine residual import demand.

Conclusions

Future growth in U.S. agricultural exports will be increasingly tied to exploration and development of promising new markets in the developing world. Cameroon is one such potential market, based on the outlook for continued strong growth in its economy over the next decade and projections for continued rapid growth and diversification in its food import demand.

The author projects Cameroon's oil export revenues to support a 7-percent real annual growth in GDP during

Table 25—Prepared vegetable imports by supplier

Year	China	France	Hungary	Italy	Morocco	Spain	United States	Other	Total
					Metric tons				
1970	2	758	46	1,699	28	21	0	103	2,657
1971	0	779	0	2,642	22	19	0	0	3,462
1972	12	818	11	746	36	26	0	115	1,764
1973	13	810	60	1,485	40	40	0	52	2,500
1974	24	644	27	1,171	26	37	3	60	1,992
1975	64	461	13	685	27	31	1	44	1,326
1976	26	579	0	1,819	20	19	4	34	2,501
1977	23	765	37	2,483	30	41	0	56	3,435
1978	96	503	22	1,806	29	27	9	104	2,596
1979	0	1,863	0	5,833	0	139	10	7	7,852
1980	0	1,674	0	4,775	0	145	0	87	6,681
					1,000 dollars				
1970	2	425	15	544	16	486	0	100	1,588
1971	8	398	30	618	19	552	0	0	1,625
1972	6	472	4	223	24	199	0	79	1,007
1973	7	664	26	714	28	621	0	115	2,147
1974	16	613	15	867	21	754	2	179	2,467
1975	33	659	6	373	32	324	1	87	1,515
1976	12	592	5	783	26	681	6	138	2,243
1977	19	739	21	1,212	38	1,054	0	42	3,125
1978	73	571	15	1,022	46	889	15	120	2,778
1979	0	2,130	0	3,911	0	3,401	22	12	9,476
1980	0	1,925	0	3,303	0	2,872	0	56	8,156

Source: (*3, 7*).

the eighties. As in other developing countries, increased income and the accompanying trends toward increased urbanization and improved quality of diet will cause accelerated food imports.

This study projected demand for 11 major food import commodities in 1985 and 1990 based on four alternative assumptions about future trends in income, import prices, and domestic production. In all of these scenarios, it is clear that cereals (rice and wheat) will continue to be Cameroon's dominant food import in the eighties. If recent trends in income, import prices, and domestic food production continue, Cameroon's wheat imports should increase 10.4 percent annually between 1980 and 1990, rising to 461,000 tons in 1990. Rice imports should increase 9 percent annually for the same period to nearly 100,000 tons. Fish imports should increase to over 21,000 tons, while meat, dairy, and vegetable imports should also rise rapidly.

However, growth in these commodities could vary significantly depending on growth in income. Wheat imports could vary between high- and low-income scenarios by 175,000 tons in 1990 compared with total imports in 1980 of 116,000 tons. Rice imports could vary between high- and low-income scenarios by 34,000 tons in 1990, compared with total imports of 22,000 tons in 1980. Because the other commodities in this study are less sensitive to income than are cereals, the implications of alternative levels of future income on import quantities are less marked. Following rice and wheat, imports of vegetables, fish, and meat could also vary substantially depending on future income levels.

The scenario for high food production illustrates the potential importance of Cameroon's efforts to increase agricultural production for stemming food imports. Rice imports could stabilize at about 30,000 tons per

Table 26—Fresh vegetable imports by supplier

Year	Federal Republic of Germany	France	Netherlands	Nigeria	United States	Other	Total
				Metric tons			
1970	31	736	498	345	19	78	1,707
1971	39	604	1,094	130	20	19	1,906
1972	16	324	952	122	8	58	1,480
1973	19	187	890	162	15	67	1,340
1974	32	117	714	180	26	51	1,120
1975	25	93	567	209	49	39	982
1976	33	88	435	358	73	38	1,025
1977	21	96	870	132	48	48	1,215
1978	70	142	911	63	82	92	1,360
1979	72	169	1,525	0	325	4	2,095
1980	83	153	1,349	0	0	2	1,587
				1,000 dollars			
1970	55	217	53	21	34	60	440
1971	66	182	92	13	22	31	406
1972	18	166	150	12	19	22	387
1973	83	186	141	12	41	38	501
1974	123	195	107	9	76	70	580
1975	102	245	136	20	156	125	784
1976	125	241	146	28	217	90	847
1977	86	283	154	23	161	22	729
1978	275	413	179	9	242	175	1,293
1979	491	306	531	0	374	20	1,722
1980	877	308	362	0	10	3	1,560

Source: (*3, 7*).

year if Government production plans are realized. Efforts to increase vegetable output and develop greater domestic vegetable processing capacity could also significantly reduce vegetable imports. However, achieving production goals in most other commodities should not reduce imports of those commodities significantly. In addition, wheat has not been successfully grown in Cameroon, and the domestic fish industry continues to decline. Thus, domestic development efforts will not stem imports of wheat or fish, which together account for a large proportion of total food imports.

Prospects are good for the United States to increase its share of Cameroon's food imports (currently 5-8 percent, worth $6-$8 million). Gradual changes in the import sector toward a greater presence of Cameroonians, combined with increased official contact and trade promotion activities between the U.S. and Cameroon Governments, are expanding opportunities for U.S. trade.

While France continues to dominate the Cameroon market, the French share of nonagricultural imports and the French presence in Cameroon's financial and industrial sectors have declined markedly as more countries become interested, and aggressively active, in Cameroon. The greatest trade opportunities for U.S. exporters in the Cameroon food-import market are in basic food items and high-growth items. Price competitiveness is essential. The best prospects are basic foods such as unprocessed wheat and rice, canned meats and fish, canned vegetables (particularly to-

Table 27—Tobacco imports by supplier

Year	Brazil	China	France	India	Italy	Malawi	United Kingdom	United States	Other	Total
					1,000 dollars					
1970	80	26	31	42	1	178	97	987	310	1,752
1971	82	32	36	43	55	234	96	1,359	350	2,287
1972	120	52	47	36	116	553	83	1,720	340	3,067
1973	77	38	45	63	89	66	161	1,563	518	2,614
1974	14	170	64	144	88	323	294	1,817	410	3,324
1975	149	141	75	260	252	702	420	2,546	438	4,983
1976	2	185	86	1	63	673	771	2,485	395	4,661
1977	471	358	192	220	137	892	1,056	3,356	654	7,336
1978	252	184	94	236	73	751	534	3,088	1,058	6,270
1979	282	0	80	0	86	0	2,071	3,474	95	6,088
1980	144	0	155	0	0	0	428	1,856	120	2,703

Source: (3, 7).

Table 28—Alcoholic beverage imports by supplier

Year	Algeria	Morocco	Spain	Tunisia	United States	Other	Total
				1,000 dollars			
1970	0	256	1,394	147	2	34	1,833
1971	0	31	1,377	0	3	33	1,444
1972	0	126	1,008	528	2	26	1,690
1973	353	147	759	626	1	180	2,066
1974	523	44	1,063	814	1	156	2,601
1975	183	39	2,050	877	2	68	3,219
1976	2	131	2,919	492	1	66	3,611
1977	4	60	4,170	21	37	292	4,584
1978	986	0	1,497	781	12	1,237	4,513
1979	0	0	8,848	0	0	131	8,979
1980	0	0	8,336	0	0	107	8,443

Source: (3, 7).

matoes), powdered and condensed milk, and inexpensive convenience foods generally.

Successful entry and sustained market share will require that potential U.S. exporters spend the time and energy to tailor their products to a French-speaking, price-conscious market. Lack of refrigeration and poor transportation are important considerations in identifying the most promising products and the most appropriate processing and packaging for the Cameroon market. Because of Cameroon's fragmented import sector, exporters must work actively at aggregating many small orders, or they must establish a local representative or distributor.

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Appendix I: Methodology

Neoclassical theory of demand and the author's knowledge of Cameroon suggested the choice of explanatory variables in this analysis. In the analysis,

$$Q_i = f(Y, P_i, S_i, Pop)$$

where:

Q_i = quantity imported of commodity i
Y = income
P_i = price of i
S_i = domestic production of i
Pop = population

Following conventional demand theory, the author hypothesized that the quantity imported would be positively related to income and import capacity, and negatively related to the commodity's own price and domestic production. The author incorporated the population variable into the equation by redefining the function in per capita terms in order to avoid multicollinearity among population, income, and domestic production and to correct for the effect of population growth on quantity demanded.

For all commodities or commodity groups, the author measured income as personal consumption expenditure (PCE) in local currency, deflated by Cameroon's consumer price index (CPI). This variable, which is a more accurate measure of effective demand than GDP, also yielded statistically better results than use of real per capita GDP to measure income effects. This variable also yielded better results than use of an import capacity variable to represent income, measured as current foreign exchange earnings and last year's foreign reserves. An import capacity variable is relevant in less developed countries where imports may be more related to foreign exchange availability than to the level of income.

The author measured price as the cost-insurance-freight (c.i.f.) unit value of imports in local currency deflated by the CPI. Deflation of unit prices by the CPI factors out the effect of variations in price levels on the quantity demanded of any good and incorporates the assumption of the absence of money illusion. In the absence of data on consumer prices the author considered import prices to be a reliable approximation of retail prices, because Cameroon has no trade barriers or enforced retail price controls or subsidies.

To measure supply, the author used a 1-year lagged supply, except for wheat which is not produced domestically, and alcohol and fish, for which reliable domestic supply data were not available. The absence of supply data probably accounts for the lower R^2 on these commodity equations. The author subtracted rice and tobacco exports from domestic production to derive net supply and subtracted food aid from imports, except for dairy products, because reliable data on dry milk food aid were not available. Food aid, however, represents only a small proportion of total dry milk imports.

The author constructed indices of the price and quantity of imports and of domestic supply for three food categories: dairy products, vegetables, and fruits. The author calculated indices by weighting quantities by their 1975 unit values with 1975 as the base year (1975 = 100). The author calculated indices on the basis of real prices in local currency.

The author used the double-log form of ordinary least squares for estimations. When autocorrelation was encountered, the author applied the Cochrane-Orcutt iterative procedure. The equations presented here were considered the best among the set of possible estimated equations (app. table 1).

Projections

The author projected import quantities for 1985 and 1990 using trend projections of income, price, and domestic supply. The author assumed that the world supply of imports would be available at the projected import price. The author also ran scenarios based on alternative projections of exogenous variables. The scenarios illustrated the sensitivity of projections to changes in explanatory variables and were useful for exploring possible outcomes of Cameroon's agricultural development on its food import demand.

Appendix table 1—Equations

Commodity	Constant	Income[1]	Price[2]	Lagged supply	R^2	DW	Form
Rice	6.78	1.78 (1.80)[3]	−1.34 (−2.55)	−0.84 (−1.50)	0.50	2.48	OLSQ
Wheat	8.29	1.11 (5.43)	−.99 (−10.86)	— —	.95	2.09	OLSQ
Fish	4.16	.92 (1.21)	−.11 (−.66)	— —	.52	2.57	OLSQ
Tobacco	6.59	−.20 (.63)	−.15 (−1.38)	.06 (1.53)	.44	1.90	OLSQ
Alcoholic beverages	10.81	— —	−.82 (−10.55)	— —	.79	1.68	CORC
Beef	12.46	1.0 (1.0)	−1.43 (−7.92)	−3.45 (−2.46)	.90	1.26	OLSQ
Poultry	10.75	.90 (1.23)	−1.98 (4.32)	−.96 (−1.32)	.82	1.78	OLSQ
Prepared meats	6.04	1.0 (2.39)	−1.52 (−6.65)	1.79 (−2.23)	.84	2.84	OLSQ
Dairy	−6.64	.23 (1.25)	−.63 (−9.45)	−1.84 (−4.40)	.96	1.56	OLSQ
Vegetables	−7.34	1.21 (3.25)	.28 (2.59)	−.35 (−1.63)	.71	1.64	CORC
Fruits	−3.03	.57 (3.17)	.38 (9.28)	.59 (3.07)	.90	2.01	OLSQ

— = Not a significant explanatory variable.
[1]Per capita personal consumption expenditure in CFA.
[2]Real price in CFA.
[3]Numbers in parentheses are t-statistics.

Appendix II: Data Sources

An important preliminary undertaking of the study was the development of a data base that includes a 16-year series of data from 1965 to 1980 on the quantity and value of imports of 30 major food commodities. The data base uses United Nations trade data, which each reporting country supplies. The author then assembled the data base using the matrix method.

The matrix method of data collection supplements patchy data reported by an importing country with data reported by its trade partners on their exports to the country. For example, during years when Cameroon does not report on its imports, one can deduce imports by reviewing exports to Cameroon as reported by all of its trade partners. The matrix method can also be used to check the accuracy of the importer's data by comparing the reported imports with trade as reported by exporters.

Data derived by the matrix method should be considered an estimate of a country's actual trade because, inevitably, the method requires that some estimations and assumptions be made. One such estimation is the conversion of import values from free on board (f.o.b.) to cost-insurance-freight (c.i.f.) values using standard conversion tables. An important assumption is that in the year for which the importer has no data, there are no additional trade partners other than those identified in previous or later years for which the importing country does provide data. Finally, because all partner countries may not have been identified, and because some partner countries may also not report trade data for years in which the importer has no data, the data derived by the matrix method are low estimates of actual trade. The downward bias is particularly evident in the most recent years because data are not yet available from many trade partners. It is also most evident for commodities for which there are many trade partners, including many with poor trade data. In some cases the author corrected this downward bias in the most recent years by making estimates of total imports of a commodity based on various sources of data and by assuming a residual category of other, unidentified exporters.

Appendix III: Additional Recommended Reading

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